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DATE: Thursday, January 03, 2008

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	DB=PGPB,USPT,JPAB,DWPI; PLUR=YES; OP=ADJ		
☐	L9	L8 and immobil$	25
☐	L8	l1 same (water or ethanol)	191
☐	L7	l1 and (water or ethanol)	607
☐	L6	L1 same glycerol	70
☐	L5	l3 and divi$	5
☐	L4	l3 and subdivi$	2
☐	L3	L1 same immobil$	12
☐	L2	L1 near3 immobil$	4
☐	L1	bone particle	1013

END OF SEARCH HISTORY

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          patents
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 NEWS 6 AUG 27 Full-text patent databases enhanced with predefined
          patent family display formats from INPADOCDB
 NEWS 7 AUG 27 USPATOLD now available on STN
 NEWS 8 AUG 28 CAS REGISTRY enhanced with additional experimental
          spectral property data
 NEWS 9 SEP 07 STN AnaVist, Version 2.0, now available with Derwent
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 NEWS 12 SEP 17 CA/CAplus enhanced with printed CA page images from
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          patents
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 NEWS 15 OCT 02 CA/CAplus enhanced with pre-1907 records from Chemisches
          Zentralblatt
 NEWS 16 OCT 19 BEILSTEIN updated with new compounds
 NEWS 17 NOV 15 Derwent Indian patent publication number format enhanced
 NEWS 18 NOV 19 WPIX enhanced with XML display format
 NEWS 19 NOV 30 ICSD reloaded with enhancements
 NEWS 20 DEC 04 LINPADOCDB now available on STN
 NEWS 21 DEC 14 BEILSTEIN pricing structure to change
 NEWS 22 DEC 17 USPATOLD added to additional database clusters
 NEWS 23 DEC 17 IMSDRUGCONF removed from database clusters and STN
 NEWS 24 DEC 17 DGENE now includes more than 10 million sequences
 NEWS 25 DEC 17 TOXCENTER enhanced with 2008 MeSH vocabulary in
          MEDLINE segment
 NEWS 26 DEC 17 MEDLINE and LMEDLINE updated with 2008 MeSH
vocabulary
 NEWS 27 DEC 17 CA/CAplus enhanced with new custom IPC display formats
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          from USPATOLD
 NEWS 29 JAN 02 STN pricing information for 2008 now available

 NEWS EXPRESS 19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS
V8.2,
          CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
          AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

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=> s bone particle
L1         97 BONE PARTICLE

=> s l1 and immobil?
L2          3 L1 AND IMMOBIL?

=> dup rem l2
PROCESSING COMPLETED FOR L2
L3          3 DUP REM L2 (0 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 3 ANSWERS - CONTINUE? Y/(N):y

L3  ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2008 ACS on STN
AN  2003:796407  CAPLUS <<LOGINID::20080103>>
DN  139:312490
TI  Method of making bone particles using  ***immobilization***  media
IN  Morris, John W.; Petersen, Kenneth C.; Shimp, Lawrence A.; Daugherty, Mark
    P.
PA  Osteotech, Inc., USA
SO  PCT Int. Appl., 29 pp.
    CODEN: PIXXD2
DT  Patent
LA  English
FAN.CNT 1
    PATENT NO.         KIND  DATE       APPLICATION NO.      DATE
    ---------------    ----  ---------  -------------------  --------
PI  WO 2003082159      A1    20031009   WO 2003-US9878       20030331
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
           CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
           GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
           LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
           PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
           UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
           KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
           FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
           BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
    CA 2480636         A1    20031009   CA 2003-2480636      20030331
    AU 2003228417      A1    20031013   AU 2003-228417       20030331
    EP 1494624         A1    20050112   EP 2003-726166       20030331
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
           IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
    US 2006024656      A1    20060202   US 2005-509585       20050725
PRAI US 2002-368645P   P     20020329
    WO 2003-US9878     W     20030331
AB  The present invention relates to a method for making bone particles from
    bone of a variety of sizes and a workpiece forming and holding device for
    use with the method. The workpiece forming device includes a base and a
    base frame attached to the surface of the base. An app. for forming a
    solidified mass of bone and  ***immobilization***  medium is also
    provided which includes the workpiece forming device and a detachable
    former member enclosing the base frame. Bone is immersed in an
     ***immobilization***  medium within such workpiece forming device, which
    is solidified to form a solidified mass of bone and  ***immobilization***
    medium and then subdivided to provide particles of bone in assocn. with
     ***immobilization***  medium. The  ***immobilization***  medium may be
    optionally removed to leave bone particles suitable for use in orthopedic
    applications including implants.
RE.CNT 1    THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS
RECORD
        ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3  ANSWER 2 OF 3  CAPLUS  COPYRIGHT 2008 ACS on STN
AN  1993:164208  CAPLUS <<LOGINID::20080103>>
DN  118:164208
TI  Effect of substrate presoaking treatment of support materials on the
    activity of  ***immobilized***  glucoamylase
AU  Mukataka, Sukekuni; Negishi, Satoshi; Sato, Seigo; Takahashi, Joji
CS  Inst. Appl. Biochem., Univ. Tsukuba, Tsukuba, Japan
SO  Enzyme and Microbial Technology (1993), 15(3), 229-33
    CODEN: EMTED2; ISSN: 0141-0229
DT  Journal
LA  English
AB  The activity of  ***immobilized***  glucoamylase was remarkably
    increased by presoaking treatment of the supports in sol. starch soln.
    Pig bone (PB) particles-100 showed the largest substrate presoaking effect
    among some representative support materials, increasing the activity of
     ***immobilized***  glucoamylase 10 fold. The improvement in the activity
    was due to an increase in the specific activity of the  ***immobilized***
    enzyme. In order to get sufficient substrate presoaking effect, a rapid
    crosslinking treatment of the enzyme and the substrate-presoaked support
    was required. The glucoamylase  ***immobilized***  on PB sheet was very
    stable and gave a high starch hydrolysis of DE95 (dextrose equiv.) for
    about 1 mo in continuous process.

L3  ANSWER 3 OF 3  CAPLUS  COPYRIGHT 2008 ACS on STN
AN  1991:38433  CAPLUS <<LOGINID::20080103>>
DN  114:38433
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TI Substrate presoaking effect on ***immobilization*** of protease on pig bone particles
AU Negishi, Satoshi; Sato, Seigo; Mukataka, Sukekuni; Takahashi, Joji
CS Inst. Appl. Biochem., Univ. Tsukuba, Tsukuba, 305, Japan
SO Journal of Fermentation and Bioengineering (1990), 70(5), 313-16
CODEN: JFBIEX; ISSN: 0922-338X
DT Journal
LA English
AB When pig bone (PB) particles and other support materials were presoaked in casein soln. and crosslinked with glutaraldehyde, the activity of ***immobilized*** protease, was two or more times greater than those of the proteases ***immobilized*** on non-treated supports. Chitopearl was an exception. The highest activity, 25,000 U/g-support, was obtained with the presoaked PB particles. The effect of presoaking the supports in the substrate soln. on the ***immobilized*** protease was also obsd. with other protein substrates. The effect of the presoaking treatment increased with an increase in the mol. wt. of the protein. The increase in the activity of the ***immobilized*** enzyme was due to increases in both the amt. of adsorbed protease and specific activity. Furthermore, the stability of protease ***immobilized*** on PB was remarkably improved by transforming the PB particles into a sheet.

=> d his

(FILE 'HOME' ENTERED AT 21:22:32 ON 03 JAN 2008)

FILE 'BIOSIS, CAPLUS, EMBASE' ENTERED AT 21:22:42 ON 03 JAN 2008
L1 97 S BONE PARTICLE
L2 3 S L1 AND IMMOBIL?
L3 3 DUP REM L2 (0 DUPLICATES REMOVED)

=> s l1 and (water or ethanol or acid)
L4 37 L1 AND (WATER OR ETHANOL OR ACID)

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5 25 DUP REM L4 (12 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 25 ANSWERS - CONTINUE? Y/(N):y

L5 ANSWER 1 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2007:163020 CAPLUS <<LOGINID::20080103>>
DN 147:58151
TI Biodisc tissue-engineered using PLGA/DBP hybrid scaffold
AU Ko, Youn Kyung; Kim, Soon Hee; Jeong, Jae Soo; Ha, Hyun Jung; Yoon, Sun Jung; Rhee, John M.; Kim, Moon Suk; Lee, Hai Bang; Khang, Gilson
CS BK-21 Polymer BIN Fusion Research Team, Chonbuk National University, Jeonju, 561-756, S. Korea
SO Polymer (Korea) (2007), 31(1), 14-19
CODEN: POLLDG; ISSN: 0379-153X
PB Polymer Society of Korea
DT Journal
LA Korean
AB Demineralized ***bone*** ***particle*** (DBP) has been used as one of the powerful inducers of bone and cartilage tissue specialization. In this study, we fabricated DBP/PLGA scaffold for tissue engineered disk regeneration. We manufd. dual-structured scaffold to compose inner cylinder and outer doughnut similar to nature disk tissue. The DBP/PLGA scaffold was characterized by porosity, wettability, and ***water*** uptake ability. We isolated and cultured nucleus pulposus (NP) and annulus fibrosus (AF) cells from rabbit intervertebral disk. We seeded NP cells into the inner core of the hybrid scaffold and AF cells into the outer portion of it. Cellular viability and proliferation were assayed by 3-(4,5-dimethylthiazole-2-yl)-2,5-diphenyltetrazolium-bromide (MTT) test. PLGA and PLGA/DBP scaffolds were implanted in s.c. of athymic nude mouse to observe the formation of disk-like tissue in vivo. And then we obsd. change of morphol. and hematoxylin and eosin (H&E). Formation of disk-like tissue was better DBP/PLGA hybrid scaffold than control. Specially, we confirmed that scaffold impregnated 20 and 40% DBP affected to proliferation of disk cell and formation of disk-like tissue.

L5 ANSWER 2 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2006:597345 CAPLUS <<LOGINID::20080103>>
DN 145:61836
TI Continuous enzymic degradation of eel processing wastes to recover useful materials
IN Kagami, Hideto; Tominaga, Kenji
PA Fukuoka Yoman K. K., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2006158263	A	20060622	JP 2004-352782	20041206
PRAI JP 2004-352782		20041206		

AB The method comprises (1) a step to mix backbones, heads, viscera, etc., as eel processing wastes with proteases and remove solid from the degrdn. products with a solid-liq. separator, (2) a step to sep. the liq. into light liq. contg. fats/oils and heavy liq. contg. ***water*** -sol. proteinaceous components upon centrifugation, (3) a step to treat the heavy liq. with a pore diffusion-type membrane separator to diffuse low-mol.-wt. components such as peptides and amino acids into ***water*** for sepn. of .gtoreq.50,000-mol.-wt. components such as the proteases, unreacted proteins, etc. and .gtoreq.20 nm-diam. particles and conc. the peptides and the amino acids, and (4) a step to recycle the proteases and unreacted proteins to the step (1) after concn. if necessary. Thus, minced eel backbones and Aroase XA 10 (protease) soln. were continuously fed to a degrdn. tank at 65-68.degree., the degrdn. product was sepd. into bone particles and liq. with a vibrating screen, and the liq. was sepd. into an oil layer contg. DHA, EPA, CoQ10, etc. and an aq. layer. The aq. layer was treated with a flat membrane (av. pore size 17 nm, porosity 60%, thickness 300 .mu.m), and ***water*** , into which the reaction products (peptides) were diffused from the aq. layer, was concd. with a regenerated cellulose membrane (av. pore size 2 nm, porosity 30%, thickness 15 .mu.m). A fraction, which contained the protease and unreacted proteins and was not diffused through the flat membrane, was concd. with a hollow-fiber membrane and recycled to the enzymic degrdn. step.

L5 ANSWER 3 OF 25 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
DUPLICATE 1
AN 2006:401402 BIOSIS <<LOGINID::20080103>>
DN PREV200600393692
TI Factors affecting stiffness properties in impacted morsellized bone used in revision hip surgery: An experimental in vitro study.
AU Fosse, Lars [Reprint Author]; Ronningen, Helge; Benum, Pal; Lydersen, Stian; Sandven, Rolf B.
CS Norwegian Univ Sci and Technol, Norwegian Orthoped Implant Res Unit, N-7034 Trondheim, Norway
lars.fosse@ntnu.no
SO Journal of Biomedical Materials Research, (AUG 2006) Vol. 78A, No. 2, pp. 423-431.
ISSN: 1549-3296. E-ISSN: 1552-4965.
DT Article
LA English
ED Entered STN: 9 Aug 2006
Last Updated on STN: 9 Aug 2006
AB When revising loosened joint prosthesis, impacted morsellized bone is frequently used as organic scaffolding. We studied the relative influence that different ***bone*** ***particle*** size, impaction energy, and liquid content had on impacted bone stiffness. Bovine bone was morsellized in a bone mill by three grinding drums to produce bone with different chip size distribution. Next, portions of bone chips of controlled sizes were produced by a five-leveled sieve. Layer by layer of bone are constructed into pellets by our experimental impaction method. This method allows us to vary one independent factor at a time in a controlled manner while keeping the other factors constant. Stiffness for all bone pellets were measured during impaction and loading. In earlier studies, we focused on how impaction force, number of impaction strokes, and bone liquid contents influence mechanical behavior. Here, we compare the outcome of all studies using general linear models. All five factors significantly contribute to stiffness of impacted morsellized bone. Changing bone moisture has major, while increasing the number of impaction strokes beyond five per layer has minor effect. Low ***water*** content is the main contributor to highest load stiffness. Optimal stability of impacted morsellized bone is achieved with dried and well-graded particles. The number of heavy impaction strokes can be restricted. (c) 2006 Wiley Periodicals, Inc.

L5 ANSWER 4 OF 25 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
AN 2006:100891 BIOSIS <<LOGINID::20080103>>
DN PREV200600106418
TI Mortadella sausage formulations with partial and total replacement of beef and pork backfat with mechanically separated meat from spent layer hens.
AU Trindade, Marco A. [Reprint Author]; Contreras, Carmen C.; De Felicio, Pedro E.
CS Univ Estadual Campinas, Dept Food Technol, POB 6121, Campinas, SP, Brazil
trindademarco@aol.com
SO Journal of Food Science, (APR 2005) Vol. 70, No. 3, pp. S236-S241.
CODEN: JFDSAZ. ISSN: 0022-1147.
DT Article
LA English
ED Entered STN: 8 Feb 2006
Last Updated on STN: 8 Feb 2006
AB Mortadella sausages were formulated with 0%, 20%, 40%, 60%, 80%, and 100%
mechanically separated layer hen meat (MSLM) replacing the beef and pork backfat as raw materials. Treatments were compared by determination of shear force, sensory acceptance, and stability during cold storage (microbial analysis, thiobarbituric ***acid*** -reactive substances [TBARS], color, and descriptive sensory analysis). Mortadella with higher MSLM presented lower shear force values. TBARS index and sensory rancidity were not affected. The greater the amounts of MSLM used, the paler was the pink color observed in the sensory evaluations and the lower were the CIE a* values. All treatments presented minimal increase in the microbiological counts evaluated during storage. The limiting factor in the acceptance of the product was the perception of bone particles in mortadella containing 60% or more MSLM.

L5 ANSWER 5 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:515684 CAPLUS <<LOGINID::20080103>>
DN 141:59805
TI Formable and settable polymer bone composite and method of production thereof
IN Winterbottom, John M.; Kaes, David
PA Osteotech, Inc., USA
SO PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 5

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004053112	A1	20040624	WO 2003-US39704	20031212
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2510420	A1	20040624	CA 2003-2510420	20031212
AU 2003297929	A1	20040630	AU 2003-297929	20031212
EP 1578957	A1	20050928	EP 2003-797000	20031212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006509539	T	20060323	JP 2004-558203	20031212
PRAI US 2002-432968P	P	20021212		
WO 2003-US39704	W	20031212		

AB The osteoimplant composite comprises a polymer and bone-derived particles. The composite is adapted and constructed to be formable during or immediately prior to implantation and to be set after final surgical placement. For example, pellets of starch poly(caprolactone) were placed in a microwave oven and heated to .apprx.54.4.degree., then pressed together by hand to form a larger mass of polymer. Before the polymer cooled, partially demineralized bovine bone particles were folded into the polymer until the polymer contained .apprx. 50% of bone particles. The composite was then heated and formed into a desired final shape. The composite could be repeatedly heated and reshaped. Once formed, the composite was subjected to approx. 10 heating/cooling cycles with no observable degrdn. of handling or setting properties.

L5 ANSWER 6 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:333614 CAPLUS <<LOGINID::20080103>>
DN 140:327165
TI Coupling agents for orthopedic composite biomaterials
IN Shimp, Lawrence A.; Knaack, David
PA Osteotech, Inc., USA
SO PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004032988	A2	20040422	WO 2003-US31990	20031008
WO 2004032988	A3	20040527		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2501822	A1	20040422	CA 2003-2501822	20031008
AU 2003277325	A1	20040504	AU 2003-277325	20031008
US 2005008620	A1	20050113	US 2003-681651	20031008
US 7270813	B2	20070918		
EP 1549359	A2	20050706	EP 2003-808189	20031008
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRAI US 2002-416904P	P	20021008		
WO 2003-US31990	W	20031008		

AB The invention provides a method for the prepn. of bone-polymer composites wherein the mineral portion of the bone is treated with a coupling agent, e.g., a silane, a zirconate, or a titanate, before being incorporated into a biocompatible polymeric matrix. The resulting composites may be used as such or be further processed to form an osteoimplant.

L5 ANSWER 7 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:796407 CAPLUS <<LOGINID::20080103>>
DN 139:312490
TI Method of making bone particles using immobilization media
IN Morris, John W.; Petersen, Kenneth C.; Shimp, Lawrence A.; Daugherty, Mark P.
PA Osteotech, Inc., USA
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003082159	A1	20031009	WO 2003-US9878	20030331
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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CA 2480636	A1	20031009	CA 2003-2480636	20030331
AU 2003228417	A1	20031013	AU 2003-228417	20030331
EP 1494624	A1	20050112	EP 2003-726166	20030331
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2006024656	A1	20060202	US 2005-509585	20050725
PRAI US 2002-368645P	P	20020329		
WO 2003-US9878	W	20030331		

AB The present invention relates to a method for making bone particles from bone of a variety of sizes and a workpiece forming and holding device for use with the method. The workpiece forming device includes a base and a base frame attached to the surface of the base. An app. for forming a solidified mass of bone and immobilization medium is also provided which includes the workpiece forming device and a detachable former member enclosing the base frame. Bone is immersed in an immobilization medium within such workpiece forming device, which is solidified to form a solidified mass of bone and immobilization medium and then subdivided to provide particles of bone in assocn. with immobilization medium. The immobilization medium may be optionally removed to leave bone particles suitable for use in orthopedic applications including implants.

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:439516 CAPLUS <<LOGINID::20080103>>
DN 139:31744
TI Gene transfer to bone tissues via particle gun and application to gene therapy for cartilage loss
IN Moriya, Hideshige; Wada, Yuichi
PA Seikagaku Kogyo Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 28 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003164289	A	20030610	JP 2001-367091	20011130
CA 2407302	A1	20030530	CA 2002-2407302	20020927
US 2003108531	A1	20030612	US 2002-262526	20020930
PRAI JP 2001-367091	A	20011130		

AB A gene for transfection into bone tissues via gene gun (particle gun), is disclosed. Preferably, hyaluronan synthase, more specifically, hyaluronan synthase-2 (Has2) coding gene is introduced into periosteum or cartilage tissue to be used for transplantation. A kit for gene transfer, comprising a gene and a carrier/support, is claimed. Introduction of lacZ gene and Has2 gene into periosteum using gold particle gene gun, and transplantation to cartilage deficient part of joint in rabbit, are described.

L5 ANSWER 9 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:595358 CAPLUS <<LOGINID::20080103>>
DN 137:145651
TI Compositions, methods, and kits for closure of lumen openings, and for bulking of tissue
IN Wironen, John F.; Donda, Russell S.
PA USA
SO U.S. Pat. Appl. Publ., 12 pp., Cont.-in-part of U. S. Ser. No. 776,404.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2002106411	A1	20020808	US 2001-865318	20010525
US 2002107429	A1	20020808	US 2001-776404	20010202
US 6685626	B2	20040203		
US 2002176893	A1	20021128	US 2001-16602	20011022
WO 2002062404	A2	20020815	WO 2002-US3107	20020131
WO 2002062404	A3	20030626		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,				

RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
AU 2002240228 A1 20020819 AU 2002-240228 20020131
PRAI US 2001-776404 A2 20010202
US 2001-865318 A2 20010525
US 2001-16602 A 20011022
WO 2002-US3107 W 20020131
AB Disclosed and claimed are compns., devices, methods and kits that are useful in occluding lumens or bulking-up regions of tissues or organs in a living mammal. The invention pertains to a compn. contg. specific particulate components, wherein the particulates promote responsive body processes that contribute to the formation of the occlusion or bulked-up region. The particulate, e.g. hydroxyapatite is mixed with a carrier, e.g. glatin, and is applied to a lumen or other body region in need of closure to form occlusion (no data).

L5 ANSWER 10 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:871401 CAPLUS <<LOGINID::20080103>>
DN 137:114438
TI Preparation and characterization of demineralized ***bone*** ***particle*** impregnated poly(L-lactide) scaffolds
AU Khang, Gilson; Park, Chong Soo; Rhee, John M.; Lee, Sang Jin; Lee, Young Moo; Choi, Myoung Kyu; Lee, Hai Bang; Lee, Ilwoo
CS Department of Polymer Science and Technology, Chonbuk National University, Jeonju, 561-756, S. Korea
SO Korea Polymer Journal (2001), 9(5), 267-276
CODEN: KPJOE2; ISSN: 1225-5947
PB Polymer Society of Korea
DT Journal
LA English
AB In order to endow with new bioactive functionality from demineralized ***bone*** ***particle*** (DBP) as natural source to poly(L-lactide) (PLA) synthetic biodegradable polymer, porous DBP/PLA as natural/synthetic composite scaffolds were prepd. and compared by means of the emulsion freeze drying and solvent casting/salt leaching methods for the possibility of the application of tissue engineered bone and cartilage. For the emulsion freeze drying method, it was obsd. that the pore size decreased in the order of 79.mu.m (PLA control) > 47 .mu.m (20% of DBP) > 23 .mu.m (40% of DBP) > 15 .mu.m (80% of DBP). Porosities as well as specific pore areas decreased with increasing the amt. of DBP. It can be explained that DBP acts like emulsifier resulting in stabilizing ***water*** droplet in emulsion. For the solvent casting/salt leaching method, a uniform distribution of well interconnected pores from the surface to core region were obsd. the pore size of 80 - 70 .mu.m independent with DBP amt. Porosities as well as specific pore areas also were almost same. For pore size distribution by the mercury intrusion porosimeter anal. between the two methods, the pore size distribution of the emulsion freeze drying method was broader than that of the solvent casting/salt leaching method due to the mechanism of emulsion formation. Scaffolds of PLA alone, DBP/PLA of 40 and 80%, and DBP powder were implanted on the back of athymic nude mouse to observe the effect of DBP on the induction of cells proliferation by hematoxylin and eosin staining for 8 wk. It was obsd. that the effect of DBP/PLA scaffolds on bone induction are stronger than PLA scaffolds, even though the bone induction effect of DBP/PLA scaffold might be lowered than only DBP powder, that is to say, in the order of DBP only > DBP/PLA scaffolds of 40 and 80% DBP > PLA scaffolds only for osteoinduction activity. In conclusion, it seems that DBP plays an important role for bone induction in DBP/PLA scaffolds for the application of tissue engineering area.
RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 25 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 2
AN 1999:225886 BIOSIS <<LOGINID::20080103>>
DN PREV199900225886
TI Supplemental citric ***acid*** and particle size of fish bone-meal influence the availability of minerals in rainbow trout Oncorhynchus mykiss (Walbaum).
AU Vielma, J. [Reprint author]; Ruohonen, K.; Lall, S. P.
CS Laukaa Fisheries Research and Aquaculture, Finnish Game and Fisheries Research Institute, FIN-41360, Valkola, Finland
SO Aquaculture Nutrition, (March, 1999) Vol. 5, No. 1, pp. 65-71. print.
ISSN: 1353-5773.
DT Article
LA English
ED Entered STN: 17 Jun 1999
Last Updated on STN: 17 Jun 1999
AB Juvenile rainbow trout Oncorhynchus mykiss (Walbaum) were fed six low-phosphorus (P) diets supplemented with two different sizes of ground fish bone-meals (fine, 68 mum or less; coarse, 250-425 mum) and a coarse bone-meal diet containing four levels of citric ***acid*** (0, 4, 8 or 16 g kg-1 diet) to investigate the effects of pH and ***bone*** ***particle*** size on P bioavailability. The basal diet provided 3.4 g P kg-1 and bone-meal increased P contents to 5.4-6.0 g P kg-1. Coarse bone-meal diets supplemented with 0, 4, 8 or 16 g kg-1 of citric ***acid*** had pH values of 6.0, 5.7, 5.4 and 5.0, respectively. Weight gain and whole-body ***water*** , protein and lipid contents were not influenced by bone-meal supplementation. Supplementing the basal diet with both coarse and fine bone-meal significantly increased whole-body ash content. Fish fed no bone-meal were hypophosphataemic compared with fish fed with either fine or coarse bone-meals. Phosphorus in fine bone-meal had higher availability than P in coarse bone-meal. Bone-meal supplementation significantly decreased whole-body manganese content from 8.9 mug g-1 in fish fed no bone-meal to 2.3 and 4.5 mug g-1 in fish fed with fine and coarse bone-meals, respectively. The concentration of magnesium increased but zinc concentration was not affected by bone-meal supplements. Citric ***acid*** increased whole-body ash content but the influence of citric ***acid*** on the body P content was not significant (P = 0.07). Dietary acidification by citric ***acid*** significantly increased whole-body iron in a linear fashion. The bioavailability of dietary P can be improved by fine grinding the bone in fish meals.

L5 ANSWER 12 OF 25 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 3
AN 1998:88897 BIOSIS <<LOGINID::20080103>>
DN PREV199800088897
TI Inhibition of avian osteoclast bone resorption by monoclonal antibody 121F: A mechanism involving the osteoclast free radical system.
AU Collin-Osdoby, Patricia; Li, Li; Rothe, Linda; Anderson, Fred; Kirsch, David; Oursler, Merry Jo; Osdoby, Philip [Reprint author]
CS Dep. Biol., Box 1229, Washington Univ., St. Louis, MO 63130, USA
SO Journal of Bone and Mineral Research, (Jan., 1998) Vol. 13, No. 1, pp. 67-78. print.
CODEN: JBMREJ. ISSN: 0884-0431.
DT Article
LA English
ED Entered STN: 25 Feb 1998
Last Updated on STN: 25 Feb 1998
AB Osteoclasts generate high levels of superoxide anions during bone resorption that contribute to the degradative process, although excessive levels of this free radical may be damaging. One mechanism for their removal is via superoxide dismutase (SOD), a protective superoxide scavenging enzyme. We have previously described a novel developmentally regulated 150 kDa plasma membrane glycoprotein of avian osteoclasts which is reactive with the osteoclast-specific monoclonal antibody (Mab) 121F and is related immunologically, biochemically, and in protein sequence to mitochondrial Mn2ξ SOD. We hypothesized that this unusual osteoclast surface component may be involved in protection against superoxides generated during active bone resorption. Increasing concentrations of monovalent Fab fragments prepared from Mab 121F, but not those from another antiosteoclast Mab designated 29C, markedly inhibited both ***bone*** ***particle*** and bone pit resorption by avian osteoclasts, while reducing tartrate resistant ***acid*** phosphatase activity and causing the morphological contraction of osteoclasts on bone. Thus, the SOD-related membrane antigen may be essential for osteoclast bone resorption. Osteoclast superoxide production, monitored kinetically by cytochrome c reduction and histochemically by nitroblue tetrazolium reduction staining, was significantly greater in the presence of 121F, but not 29C, Fab treatment. Furthermore, the release of another free radical known as nitric oxide, which is produced by osteoclasts, can scavenge superoxides, and acts to potently inhibit osteoclast bone resorption, was dose-dependently increased by 121F Fab in resorbing osteoclast cultures. Therefore, Mab 121F binding may block the potential protective function of the osteoclast plasma membrane SOD-related glycoprotein, leading to a rapid elevation of superoxide levels and a subsequent rise in osteoclast nitric oxide release, feedback messages which may be sensed by the osteoclast as signals to cease active bone resorption.

L5 ANSWER 13 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:107400 CAPLUS <<LOGINID::20080103>>
DN 126:122510
TI Modified osteogenic materials comprising collagen and demineralized bone particles
IN Jefferies, Steven R.
PA Biocoll Laboratories, Inc., USA
SO PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9639203	A1	19961212	WO 1996-US9749	19960606
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
CA 2222626	A1	19961212	CA 1996-2222626	19960606
AU 9661074	A	19961224	AU 1996-61074	19960606
EP 851772	A1	19980708	EP 1996-918400	19960606
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1192700	A	19980909	CN 1996-196049	19960606
MX 9709909	A	20040823	MX 1997-9909	19971208

PRAI US 1995-469982 A 19950606
WO 1996-US9749 W 19960606
AB An osteogenic process and product comprise collagen and demineralized bone
particles. The product may contain a max. of 20% by wt. inorg. materials. The product may be densified by compression. Addnl. osteogenic factors, mitogens, drugs or antibiotics may be incorporated therein. Inorg. materials may be bound to the org. matrix via precoating with a calcium or hydroxyapatite binding protein, peptide or amino ***acid*** . The materials also display long lasting drug release characteristics. The process and resultant compn. increases the rate and predictability of osteoinduction by demineralized bone matrix. In particular, this invention relates to compns. of demineralized bone and calcium or other mineral salts which exhibit enhanced osteogenic potential. The osteogenic compns. comprise between about 60% to 90% demineralized bone and compns.
comprising a carrier and alk. phosphatase capable of inducing bone-like structures. Thus, 10 g of demineralized bone matrix was milled to a uniform particle size ranging 75-400.mu.m. The particles were immersed in a soln. of 0.05% glutaraldehyde in neutral phosphate buffered isotonic saline for 12 h with const. agitation at 4.degree., then filtered, washed, dried and sterilized. These activated particles may be placed directly in an osseous defect or complexed with an org. biopolymer and used.

L5 ANSWER 14 OF 25 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 4
AN 1995:404159 BIOSIS <<LOGINID::20080103>>
DN PREV199598418459
TI Degradation of subcutaneous implants of bone particles from normal and warfarin-treated rats.
AU Serre, C. M. [Reprint author]; Price, P.; Delmas, P. D.
CS INSERM Res. Unit 403, Fac. Med. Alexis Carrel, 69372 Lyon Cedex 08, France
SO Journal of Bone and Mineral Research, (1995) Vol. 10, No. 8, pp. 1158-1167.
CODEN: JBMREJ. ISSN: 0884-0431.
DT Article
LA English
ED Entered STN: 27 Sep 1995
Last Updated on STN: 27 Sep 1995
AB Osteoclasts are multinucleated cells specific to bone tissue and of hemopoietic origin. They are formed by fusion of mononucleated cells in a manner related to the formation of macrophage polykarions. Subcutaneous implantation of mineralized bone particles induces multinucleated giant cell recruitment. There is controversy, however, about the nature of these cells. Although subcutaneous implantation of bone particles derived from warfarin-treated animals has been applied as an in vivo model to study the role of osteocalcin in bone resorption, the exact nature of multinucleated cells elicited in this model is still unclear. In this paper, subcutaneous implants of bone particles from normal and warfarin-treated rats were implanted in Sprague-Dawley rats. Resorption was assessed in 12 and 16 day implants by chemical analysis (calcium content) and by histomorphometric measurement of the ***bone*** ***particle*** area and the number of multinucleated and tartrate-resistant ***acid*** phosphatase-positive cells. No significant difference in calcium content and bone area were observed, after 12 or after 16 days of implantation, between implants from normal and warfarin-treated rats. The number of tartrate-resistant ***acid*** phosphatase-positive cells elicited by bone particles represented less than 25% of the number of multinucleated cells and did not differ between bone particles from normal and warfarin-treated rats. By electron microscopy, a majority of multinucleated cells did not show a ruffled border in contact with bone particles, and their morphological features were suggestive of a foreign body giant cell reaction. In our experience this model appears to elicit only a few osteoclasts among multinucleated macrophagic cells and may not be the most appropriate one for the study of resorption of normal or osteocalcin-depleted bone.

L5 ANSWER 15 OF 25 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN
AN 1995207008 EMBASE <<LOGINID::20080103>>
TI Biochemical analysis of heterotopic ossification in spinal cord injury patients.
AU Chantraine A.; Nusgens B.; Lapiere C.M.
CS A. Chantraine, Div. Medecine Physique Reeducation, Hopital Cantonal Universitaire, Beau-Sejour, 1211 Geneve 14, Switzerland
SO Paraplegia, (1995) Vol. 33, No. 7, pp. 398-401.
ISSN: 0031-1758 CODEN: PRPLBL
CY United Kingdom
DT Journal; Article
FS 033 Orthopedic Surgery
008 Neurology and Neurosurgery
LA English
SL English
ED Entered STN: 27 Jul 1995
Last Updated on STN: 27 Jul 1995
AB Heterotopic ossification (HO) represents a frequent complication in spinal cord injury (SCI) patients. Samples of HO taken from SCI patients were studied and compared to normal bone. We used a procedure of ***bone*** ***particle*** fractionation (according to their degree of mineralisation) which allowed us to establish a profile reflecting the metabolic remodelling of bone and to analyse the organic matrix of the newly synthesised tissue. In paraplegic patients, we noted that there was a large increase of the proportion of a degree of calcified bone in the HO as we had previously observed in cortical as well as in cancellous bone of the same patients. Based on aminoacid analyses, we observed in the newly synthesised organic matrix of HO a decreased proportion of hydroxyprolyl residues resulting either from an alteration of the prolyl hydroxylation or from the presence of an excess of non-collagen polypeptides. These results are similar to those seen in subtesional bone of the SCI patients. This study demonstrates that HO is a newly formed bone which has a high rate of turnover as is seen in growing bone. This must be taken into account for the treatment of the patients.

L5 ANSWER 16 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1995:218304 CAPLUS <<LOGINID::20080103>>
DN 122:6561
TI Myeloblastic cell line expresses osteoclastic properties following coculture with marrow stromal adipocytes
AU Benayahu, D.; Peled, A.; Zipori, D.
CS Department of Cell Biology, Weizmann Institute of Science, Rehovot, 76100, Israel
SO Journal of Cellular Biochemistry (1994), 56(3), 374-84
CODEN: JCEBD5; ISSN: 0730-2312
PB Wiley-Liss
DT Journal
LA English
AB Osteoclasts are derived from hemopoietic precursors in the marrow. Their differentiation pathway is still undefined, but an important role was obsd. for the marrow microenvironment in the regulation of osteoclastogenesis. Various marrow stromal cell subtypes were used to study their possible role in the formation of osteoclasts from myeloblast (M1) cells. Interactions between M1 cells and the 14F1.1 endothelial-adipocyte stromal cell line were demonstrated in a coculture model. M1 cells attached to the adherent layer of 14F1.1 cells and formed distinct foci reminiscent of cobblestone areas. Following these interactions, M1 cells developed specific enzymic activities and became multinucleated. Both mononuclear and multinuclear M1 cells became pos. to tartrate-resistant ***acid*** phosphatase (TRaP) and ATPase, a feature characteristic of osteoclasts, and were also responsive to calcitonin. Furthermore, they attached to mineralized ***bone*** ***particle*** and their membranes changed into a ruffled border at the zone of interaction with the bone matrix. The authors thus demonstrated that marrow endothelial-adipocytes may play a role in regulating the differentiation of myeloblasts into osteoclasts.

L5 ANSWER 17 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1992:257790 CAPLUS <<LOGINID::20080103>>
DN 116:257790
TI Intensification of maceration in the manufacture of gelatin
AU Losev, Yu. I.; Morochenets, E. P.; Fenina, M. Yu.; Bessarabov, A. M.
CS USSR
SO Khimicheskaya Promyshlennost (Moscow, Russian Federation) (1992), (1), 47-8
CODEN: KPRMAW; ISSN: 0023-110X
DT Journal
LA Russian
AB A math. model of the maceration process in a semicontinuous scheme for gelatin manuf. was constructed based on the rate of diffusion of HCl to ***bone*** ***particle*** surfaces in the reactor. Anal. of the model showed that the limiting stages of the process were: (1) the internal diffusion of HCl and (2) the chem. reaction occurring on the ***bone*** ***particle*** surface. Model calcns. suggested that the time required for the maceration process could be shortened theor. from 7-9 days to .apprx.51 h.

L5 ANSWER 18 OF 25 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 5
AN 1991:253209 BIOSIS <<LOGINID::20080103>>
DN PREV199191133764; BA91:133764
TI BONE PARTICLES FROM GALLIUM-TREATED RATS ARE RESISTANT TO RESORPTION IN-VIVO.
AU DONNELLY R [Reprint author]; BOCKMAN R S; DOTY S B; BOSKEY A L
CS HOSPITAL SPECIAL SURGERY, 535 EAST 70TH STREET, NEW YORK, NY 10021, USA
SO Bone and Mineral, (1991) Vol. 12, No. 3, pp. 167-180.
CODEN: BOMIET. ISSN: 0169-6009.
DT Article
FS BA
LA ENGLISH
ED Entered STN: 25 May 1991
Last Updated on STN: 25 May 1991
AB Gallium nitrate is a clinically effective agent for the treatment of cancer related hypercalcemia. The mechanism of action of this agent was investigated following development of a quantitative in vivo bone resorption assay modified from the method of Glowacki. In a preliminary study, the time course of resorption of 50 mg subcutaneous implants of bone powder in growing rats was followed by chemical analysis of mineral (ash and Ca) contents, enzymatic and histochemical assay of tartrate resistant ***acid*** phosphatase (TRAP) activity, and image analysis of changes in particle size using von Kossa stained sections. Day 21 was chosen as a single time point for the comparison of the extent of resorption of gallium-containing and control bone particles. Resorption

of bone particles containing 0.39 .mu.g Ga/mg bone was significantly inhibited relative to control particles. Mineral content (6.7 vs. 3.6 mg), Ca content (1.72 vs. 1.37 mg), and the percentage of the field covered by bone particles (12 vs. 9%) were greater in the animals which received gallium-containing bone particles. Similarly, the number of osteoclast-like cells and the TRAP activity in the gallium-containing ***bone*** ***particle*** implants at 21 days were increased relative to controls. These data indicate that gallium incorporation into bone matrix confers resistance to resorption.

L5 ANSWER 19 OF 25 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on
STN DUPLICATE 6
AN 1991:361165 BIOSIS <<LOGINID::20080103>>
DN PREV199192049390; BA92:49390
TI NORMAL BONE PARTICLES ARE PREFERENTIALLY RESORBED IN THE PRESENCE OF
OSTEOCALCIN-DEFICIENT BONE PARTICLES IN-VIVO.
AU DEFRANCO D J [Reprint author]; GLOWACKI J; COX K A; LIAN J B
CS DEP CELL BIOL, UNIV MASS MED CENT, 55 LAKE AVE NORTH, WORCESTER, MASS
01655, USA
SO Calcified Tissue International, (1991) Vol. 49, No. 1, pp. 43-50.
CODEN: CTINDZ. ISSN: 0171-967X.
DT Article
FS BA
LA ENGLISH
ED Entered STN: 13 Aug 1991
Last Updated on STN: 13 Aug 1991
AB In an in vivo model of osteoclastic bone resorption, we previously showed that osteocalcin-deficient bone particles (BPs), derived from warfarin-treated rats, were resorbed 50% as well as normal BPs and that they recruited fewer osteoclastic cells with decreased tartrate-resistant ***acid*** phosphatase (TRAP) activity. In order to determine the specificity of the resorption response, we evaluated the fate of implanted mixtures of normal and osteocalcin-deficient BPs. Normal and warfarin-treated donor rats were prelabeled in vivo with oxytetracycline to permit identification of BPs from either source. Normal, osteocalcin-deficient, and 50:50 mixtures of BPs (either labeled or unlabeled) were implanted into normal rats and recovered 12 days later for enzymatic (TRAP) and nondecalcified histomorphometric analyses. The incorporated oxytetracycline had no significant effect on resorption of bone particles. The recovered osteocalcin-deficient BPs were surrounded by fewer osteoclastic cells, were resorbed less, and contained less extractable TRAP activity than normal BPs. In mixed BP implants with normal and osteocalcin-deficient BPs, each type of ***bone*** ***particle*** elicited the same tissue response as when implanted separately. Remarkably, the different particles evoked dissimilar osteoclastic responses and were resorbed to different extents, even when adjacent within the same implant. These data suggest that osteocalcin may act as a substrate signal for resorption and that osteocalcin in the normal BPs does not influence the cellular response to adjacent osteocalcin-deficient BPs.

L5 ANSWER 20 OF 25 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on
STN
AN 1991:1085 BIOSIS <<LOGINID::20080103>>
DN PREV199191001085; BA91:1085
TI COMPARISON OF BONE AND PARATHYROID HORMONE AS STIMULATORS OF OSTEOCLAST
DEVELOPMENT AND ACTIVITY IN CALVARIAL CELL CULTURES FROM NORMAL AND
OSTEOPETROTIC MI-MI MICE.
AU GRAVES L III [Reprint author]; JILKA R L
CS ENDOCRINOL METABOLISM 111E , VA MED CENT, 1481 W 10TH ST, INDIANAPOLIS,
INDIANA 46202, USA
SO Journal of Cellular Physiology, (1990) Vol. 145, No. 1, pp. 102-109.
CODEN: JCLLAX. ISSN: 0021-9541.
DT Article
FS BA
LA ENGLISH
ED Entered STN: 8 Dec 1990
Last Updated on STN: 9 Dec 1990
AB Osteoclast development was studied in cell cultures prepared from calvaria of neonatal osteopetrotic (mi/mi) mice or their normal littermates, using tartrate-resistant ***acid*** phosphatase (TRAPase), as an osteoclast marker. In cultures from normal mice, treatment with 10 nM PTH for 4-5 days stimulated the formation of osteoclasts. However in cultures from mi/mi mice, this response was only 7% .+. 5% that of normal mice and they were significantly smaller than osteoclasts of normal mice. Mineralized bone particles elicited osteoclast development in cultures from both normal and mi/mi mice, and osteoclast size was identical for both genotypes. Seventy-eight to 96% of the TRAPase-positive cells bound 125I-CT, as demonstrated by autoradiography. 125I-CT binding characteristics were identical in cultures from both genotypes treated with bone particles, exhibiting a Kd of 3.3-3.6 .times. 10-10 M. Addition of PTH stimulated 45Ca release from the added bone particles only in the case of cultures prepared from normal mice, and CT inhibited this response. Cells from normal mice were capable of excavating bone from the surface of smooth cortical bone wafers, but such excavations were rarely seen in the case of calvarial cells from mi/mi mice. Thus, PTH-driven differentiation of osteoclasts is arrested in calvarial cell cultures from mi/mi mice, but mi/mi preosteoclasts retain the ability to express certain osteoclast markers in response to bone derived signals. We hypothesize that the lack of activity of mi/mi osteoclasts is due to the failure of mi/mi preosteoclasts to respond appropriately to resorptive agents, or to cytokines elicited by these agents.

L5 ANSWER 21 OF 25 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on
STN DUPLICATE 7
AN 1988:1113 BIOSIS <<LOGINID::20080103>>
DN PREV198885001113; BA85:1113
TI IMPAIRED RECRUITMENT AND DIFFERENTIATION OF OSTEOCLAST PROGENITORS BY
OSTEOCALCIN-DEPLETE BONE IMPLANTS.
AU GLOWACKI J [Reprint author]; LIAN J B
CS SURG RES CHILDREN'S HOSP, 300 LONGWOOD AVE, BOSTON, MASS 02115, USA
SO Cell Differentiation, (1987) Vol. 21, No. 4, pp. 247-254.
CODEN: CLDFAT. ISSN: 0045-6039.
DT Article
FS BA
LA ENGLISH
ED Entered STN: 5 Dec 1987
Last Updated on STN: 5 Dec 1987
AB This is a report of an experimental system to study differentiation of bone-resorbing osteoclasts and demonstrates that osteocalcin, an extracellular bone-specific component, is necessary for the recruitment of osteoclast progenitor cells. The subcutaneous implantation of devitalized bone particles (BPs) elicits the recruitment and differentiation of osteoclasts that resorb the BPs. In a previous study, we showed by histomorphometric analysis that BPs that were deficient in osteocalcin were resorbed only 60% as well as normal BPs. In this study, the mechanism of this difference was investigated by measurements of recruitment, differentiation and activity of bone resorbing cells by normal and osteocalcin-deficient BP. Mononuclear cells were attracted to control BPs soon after implantation. In dramatic contrast, cellularity was depressed around osteocalcin-deficient BPs with very few mononuclear cells within the implant on day 5 (35% of control cellularity). In implants of normal BPs, tartrate-resistant ***acid*** phosphatase-positive multinucleated cells were evident by day 5; very few appeared in implants of osteocalcin-deplete BPs even by day 12. The amount of tartrate-resistant ***acid*** phosphatase activity in homogenates of the osteocalcin-deficient ***bone*** ***particle*** specimens not only lagged behind controls but never reached the maximum activity of control BP specimens. These data support the hypothesis that osteocalcin may function as a matrix signal in the recruitment and/or activation of cells for bone resorption.

L5 ANSWER 22 OF 25 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on
STN DUPLICATE 8
AN 1986:316930 BIOSIS <<LOGINID::20080103>>
DN PREV198682041235; BA82:41235
TI BONE REMODELING DURING THE DEVELOPMENT OF OSTEOPOROSIS IN PARAPLEGIA.
AU CHANTRAINE A [Reprint author]; NUSGENS B; LAPIERE C M
CS HOPITAL CANTONAL UNIV, 1211 GENEVE 4, SWITZERLAND
SO Calcified Tissue International, (1986) Vol. 38, No. 6, pp. 323-327.
CODEN: CTINDZ. ISSN: 0171-967X.
DT Article
FS BA
LA ENGLISH
ED Entered STN: 8 Aug 1986
Last Updated on STN: 8 Aug 1986
AB Osteoporosis developing during the first weeks after the onset of traumatic paraplegia was studied with cortical and cancellous samples of iliac crest and tibia of 14 patients, and compared to normals. We used a procedure of ***bone*** ***particle*** fractionation (according to degree of mineralization) that allowed us to establish a profile reflecting the metabolic remodeling of bone and to analyze the organic matrix of the newly synthesized tissue. In paraplegics, we observed a large increase in the proportion of little calcified bone in the cortical as well as in the cancellous bone. Based on amino ***acid*** analyses, we found a decreased number of hydroxyproline residues in the newly synthesized organic matrix from paraplegia bone resulting either from an alteration of the prolyl hydroxylation or from the presence of an excess of noncollagen polypeptides. These results, together with previously published data reporting increased urinary hydroxyproline and calcium kinetic parameters, suggest an enhanced rate of skeletal remodeling in acute paraplegia. When investigated 2 years after injury, the patterns of distribution approach that of normal subjects.

L5 ANSWER 23 OF 25 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on
STN
AN 1985:314755 BIOSIS <<LOGINID::20080103>>
DN PREV198579094751; BA79:94751
TI SOME MICROBIOLOGICAL ASPECTS OF INEDIBLE RENDERING PROCESSES.
AU HANSEN P-I E [Reprint author]; OLGAARD K
CS DANISH MEAT RESEARCH INST, MAGLEGAARDSVEJ 2, DK-4000 ROSKILDE, DENMARK

SO Zentralblatt fuer Bakteriologie Mikrobiologie und Hygiene Abt 1 Originale B Hygiene Umwelthygiene Krankenhaushygiene Arbeitshygiene Praeventive Medizin, (1984) Vol. 180, No. 1, pp. 3-20.
CODEN: ZAOMDC. ISSN: 0174-3015.
DT Article
FS BA
LA ENGLISH
AB Thermal death (TD)-graphs for spores of Bacillus cereus and Clostridium perfrgens and heat transmission equations for animal tissues were determined. By using the heat transmission data for bones and the TD graphs for the spores it was possible to predict the decimal reductions of spores in the center of the largest pieces present during a given rendering process, thus establishing conditions for a bacteriologically safe process. The calculations show that predrying for 45 min, followed by cooking at 125.degree. C for 15 min and final drying ensures destruction of non-sporeforming bacteria and B. anthracis spores even in the center of 70 mm bone particles; heat-resistant spores of clostridia are virtually unaffected. By reducing the particle size to < 40 mm, the same process will result in a reasonable reduction of heat resistant clostridia spores. To verify such theoretically calculated effects, a new technique has developed in which steel tubes containing a paste inoculated with spores were inserted in bones. These were treated in a cooker, caught during discharge and examined. The results confirmed the calculations. Most modern rendering systems (Carver-Greenfield, Stork-Duke, Wet Pressing) are continuous without pressure cooking and a common feature is a fine minicing which minimizes the problem of heat penetration. To obtain information regarding the thermal sterilizing effect in such systems, investigations were made in a pilot cooker using inoculated meat-and-bone meal mixed with ***water*** and/or fat. Regardless of whether fat was added, sterility was found for samples containing ***water*** when the temperature during drying reached 110-120.degree. C; cooking in fat only drastically increased the heat resistance of spores of both strains. Sterility was obtained only at temperatures of the order of 140.degree. C, a fact of minor importance for rendering, where thermal treatment usually takes place with moisture present. The decimal reductions actually found were compared to calculated ones and the former were all substantially higher than the latter. Thorough investigation of sterilization in the wet pressing system confirmed that inactivation of pathogenic microorganisms during drying is obtained when temperatures reach 110.degree. C. Calculations showed that pressure cooking at 120.degree. C for 15 min will eliminate pathogenic microorganisms in raw materials for meat and bone pulp (liquid feed). When 1.5% formic ***acid*** is added to the finished product, a few hours of storage at 90.degree. C will result in a sterile product.

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AN 1983028766 EMBASE <<LOGINID::20080103>>
TI Differential action of the bisphosphonates (3-amino-1-hydroxypropylidene)-1,1-bisphosphonate (APD) and disodium dichloromethylidene bisphosphonate (Cl(2)MDP) on rat macrophage-mediated bone resorption in vitro.
AU Reitsma P.H.; Teitelbaum S.L.; Bijvoet O.L.M.; Kahn A.J.
CS Dep. Clin. Endocrinol., Univ. Hosp., Leiden, Netherlands
SO Journal of Clinical Investigation, (1982) Vol. 70, No. 5, pp. 927-933.
ISSN: 0021-9738 CODEN: JCINAO
CY United States
DT Journal; Article
FS 026 Immunology, Serology and Transplantation
033 Orthopedic Surgery
037 Drug Literature Index
LA English
ED Entered STN: 9 Dec 1991
Last Updated on STN: 9 Dec 1991
AB The bisphosphonates (3-amino-1-hydroxypropylidene)-1,1-bisphosphonate (APD) and disodium dichloromethylidene bisphosphonate (Cl(2)MDP) effectively inhibit the accelerated bone resorption associated with some skeletal disorders, e.g., Paget's disease. However, it has not been established whether these compounds exert their inhibitory effect by rendering the bone mineral more resistant to degradation, by diminishing the activity of resorbing cells, or through some combination of both activities. In this study, we have tested these possibilities using an in vitro resorption assay system consisting of elicited rat peritoneal macrophages co-cultured with particles of (45)Ca-labeled, devitalized rat bone. This assay system permits the quantitative assessment of the action of APD and Cl(2)MDP on the two major phases of bone resorption (cell-substrate attachment and osteolysis) under circumstances where the drugs are present continuously or, most importantly for the issues in question, after the separate pretreatment of the particles or the resorbing cells. Our data indicate that (a) Both APD and Cl(2)MDP at concentrations .gtoreq.5 x 10(-6) M diminish macrophage-mediated (45)Ca release (i.e., bone resorption) in a log dose-dependent fashion. (b) A 10-min pretreatment of bone particles with either bisphosphonate (P-C-P) similarly inhibits resorptive activity, but is most pronounced with Cl(2)MDP. However, only APD is effective in reducing resorption when cells are preincubated (for 24 h) with P-C-P. (c) In cultures containing both labeled and unlabeled bone, significant inhibition occurs only when the labeled particles are coated with P-C-P (indicating that the action of P-C-P-treated bone is highly localized). (d) P-C-P does not diminish cell-***bone*** ***particle*** attachment, an essential step in the resorptive process. On the other hand, delaying the addition of P-C-P until after cell-bone attachment is completed significantly reduces the resorption-inhibiting effect of these compounds. (e) Cl(2)MDP reduces culture DNA content in proportion to its inhibitory effect on resorption, and both the inhibitory and cytotoxic actions of this P-C-P are dependent upon the presence of bone. On the other hand, APD is cytotoxic only at very high concentrations (10(-4) M), acta independently of the presence of bone, and inhibits resorption without killing cells. We conclude that the mechanisms of action of APD and Cl(2)MDP are markedly different. Cl(2)MDP is a potent cytotoxin in the presence of bone and apparently exerts its inhibitory effect in this manner. APD is noncytotoxic at levels adequate to suppress resorption and, therefore, must inhibit macrophage activity by some other mechanism. Neither P-C-P appears to limit resorption by decreasing the solubility of mineralized bone matrix.

L5 ANSWER 25 OF 25 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
AN 1978:114686 BIOSIS <<LOGINID::20080103>>
DN PREV197865001686; BA65:1686
TI CHARACTERIZATION OF BONE PARTICLES FROM MECHANICALLY DEBONED MEAT.
AU FIELD R A [Reprint author]; OLSON-WOMACK S L; KRUGGEL W G
CS DIV ANIM SCI BIOCHEM, UNIV WYO, LARAMIE, WYO 82071, USA
SO Journal of Food Science, (1977) Vol. 42, No. 5, pp. 1406-1407.
CODEN: JFDSAZ. ISSN: 0022-1147.
DT Article
FS BA
LA ENGLISH
AB Bone particles from 5 lots of mechanically deboned meat (MDM) from beef neck bones were characterized with regard to size and stability. The largest ***bone*** ***particle*** diameters were close to the theoretical limit of 460.mu. but average ***bone*** ***particle*** diameters ranged from 76.6.mu. (SD = 37.4)-111.7.mu. (SD = 49.1). Bone particles were stable in MDM but were readily solubilized in 0.018-0.15M HCl.

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